

REMARKS

This is a full and timely response to the non-final Official Action mailed **July 8, 2009** (the “Office Action” or “Action”). Reconsideration of the application in light of the above amendments and the following remarks is respectfully requested.

Claim Status:

Claims 1-30 were cancelled previously without prejudice or disclaimer. By the preceding amendment, claims 31 and 49 have been amended. Additionally, new claim 50 has been added. Thus, claims 31-50 are currently pending for further action.

35 U.S.C. § 101:

In the recent Office Action, claims 31-49 were rejected under 35 U.S.C. § 101 as not falling within one of the four statutory categories of invention. These claims have been carefully reviewed in light of the Examiner's comments.

While Applicant does not necessarily agree that the recitations of claims 31-49 do not fall within one of the four statutory categories of invention, the indicated claims have been amended herein to address the issues raised by the Examiner under 35 U.S.C. § 101.

Specifically, claim 31 has been amended to recite “with a printer client comprising a computer, identifying such a region in the image, and with the printer client, selecting a characteristic of the pattern or the content in the region identified by the printer client on the basis of the criteria, such that the image in the region meets the criteria.” Therefore, claim 31 clearly recites a method of generating an image that is tied to a particular machine or apparatus; namely, a printer client comprising a computer. Support for the amendment to claim 31 can be found in Applicant's originally filed specification at, for example, page 13,

line 1 through page 16, line 8. Following this amendment, claim 31 is clearly directed to statutory subject matter under 35 U.S.C. § 101, and notice to that effect is respectfully requested.

Prior Art:

Rejections under 35 U.S.C. §103(a):

In the recent Office Action, claims 31-49 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,464,974 to Priddy et al. (hereinafter Priddy) in view of International Patent Application Publication No. WO 01/71644 A1 to Petter (hereinafter Petter). For at least the following reasons, this rejection should be reconsidered and withdrawn.

Claim 31:

Claim 31 recites:

A method of generating an image comprising a position identifying pattern and content, the method comprising the steps of:
defining criteria relating to a region *where the content and the pattern are superimposed*, the criteria determining whether the pattern will be distinguishable over the content when applied to a product;
with a printer client comprising a computer, identifying such a region in the image; and
with the printer client, selecting a characteristic of the pattern or the content in the region identified by the printer client on the basis of the criteria, such that the image in the region meets the criteria.

(Emphasis added).

Again, support for the amendment to claim 31 can be found in Applicant's originally filed specification at, for example, page 13, line 1 through page 16, line 8.

In contrast to claim 31, Priddy and Petter do not teach or suggest "a method of generating an image comprising a position identifying pattern and content" comprising the

steps of “defining criteria relating to a region where the content and the pattern are superimposed.” (Claim 31). The cited prior art never teaches that a position-identifying pattern and separate content are superimposed.

The Office Action concedes that Priddy does not teach a position identifying pattern and content superimposed. (Action, p. 4). Therefore, the Office Action cites to Petter. However, Petter simply teaches “an image which is *produced of a coding pattern*, the symbols of which comprise markings of varying sizes.” (Petter, p. 24, ll. 28-30) (emphasis added). In other words, Petter teaches a coding pattern that is configured such that the pattern itself makes up an image in a fashion similar to a mosaic. (See e.g., Petter, Fig. 5A). There is, therefore, no distinction in Petter between a position-identifying pattern and separate content. Consequently, Petter does not teach that or suggest a distinct coding pattern that is superimposed with content. Consequently, Petter cannot remedy the acknowledged deficiencies of Priddy as alleged by the Office Action.

In contrast to the cited prior art, claim 31 recites “a method of generating an image comprising a position identifying pattern and content” comprising the steps of “defining criteria relating to a region where the content and the pattern are superimposed.” (Claim 31). This subject matter is clearly not taught or suggested in Priddy, Petter or any combination thereof.

Because neither Priddy nor Petter teach or suggest the idea of a position-identifying pattern superimposed with separate content, the combination of prior art cannot possibly teach or suggest “defining criteria relating to a region where the content and the pattern are superimposed.” (Claim 31). The cited prior art combination cannot teach or suggest that such criteria is determin[es] whether the pattern will be distinguishable over the content when applied to a product.” (Claim 31). The cited prior art combination cannot and does not teach

or suggest, “with a printer client comprising a computer, identifying such a region in the image.” (Claim 31). The cited combination of prior art does not can cannot teach or suggest “with the printer client, selecting a characteristic of the pattern or the content in the region identified by the printer client on the basis of the criteria, such that the image in the region meets the criteria.” (Claim 31). In short, the cited prior art is entirely inapposite to the subject matter of claim 31.

The Supreme Court recently addressed the issue of obviousness in *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727 (2007). The Court stated that the *Graham v. John Deere Co. of Kansas City*, 383, U.S. 1 (1966), factors still control an obviousness inquiry. Under the analysis required by *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966), to support a rejection under § 103, the scope and content of the prior art must first be determined, followed by an assessment of the differences between the prior art and the claim at issue in view of the ordinary skill in the art. In the present case, the scope and content of the prior art, as evidenced by Priddy and Petter, did not include the claimed subject matter, particularly “a method of generating an image comprising a position identifying pattern and content” comprising “defining criteria relating to a region where the content and the pattern are superimposed” (Claim 31) or any of the subsequent elements of claim 31, all of which related to the region where the content and pattern are superimposed..

The differences between the cited prior art and the indicated claims are significant because the recitations of claim 31 provide for a way to create a document with both position identifying patterns and content that do not obscure one another. Thus, the claimed subject matter provides features and advantages not known or available in the cited prior art. Consequently, the cited prior art will not support a rejection of claim 31 under 35 U.S.C. § 103 and *Graham*. Therefore, for at least the reasons explained here, the rejection based on

Priddy and Petter of claim 31 and its dependent claims should be reconsidered and withdrawn.

Additionally, various dependent claims of the application recite subject matter that is further patentable over the cited prior art. Specific, non-exclusive examples follow.

Claims 33:

Claim 33 recites: “[a] method according to claim 32 wherein the characteristic of the pattern within the region is selected *depending on the density of the content within the region.*” (Emphasis added). In contrast, Priddy and Petter do not teach or suggest “the characteristic of the pattern within the region is selected depending on the density of the content within the region.” (Claim 33).

The Office Action states that steps 104-108 of Figure 5 of Priddy provide support for this recitation. (Action, p. 5). However, this is incorrect. Priddy simply teaches the following:

In step 104, CPU 28 calculates the product of the number of squares contained in each side 14 and *determines the density of cells contained within matrix 10. By calculating the* angle of the matrix, the matrix size and the matrix density, *CPU 28 can calculate the position of each visual cell 20, 22 relative to the intersecting lines 12 in accordance with a step 106.* Thus, the center of each visual cell 20, 22 can be determined. *CPU 28 now knows the physical size of the pattern to be decoded, the total number of visual cells or their electronic equivalent stored as data 19 and the location of the center of each visual cell 20, 22 in relation to the four corners of matrix 10.* Since physical size and cell density of matrix 10 are calculated values rather than predefined, CPU 28 may recognize and decode a matrix 10 of any physical size or density.

The pattern of data 19 is decoded by first identifying the pattern distribution key in accordance with step 108. The distribution key will always be stored as a number of visual cells located at a specific position relative to the corners of matrix 10.

(Emphasis added).

In other words, steps 104-108 simply determine how many cells (elements 20 and 22) are included in a matrix of cells, but has no relation to selecting a characteristic of a pattern depending on the density of *content* associated with the pattern.

In contrast, claim 33 recites the characteristic of the pattern within the region is selected depending on the density of the content within the region. This subject matter is clearly not taught or suggested by Priddy or Petter.

Again, under the analysis required by *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966), to support a rejection under § 103, the scope and content of the prior art must first be determined, followed by an assessment of the differences between the prior art and the claim at issue in view of the ordinary skill in the art. In the present case, the scope and content of the prior art, as evidenced by Priddy and Petter, did not include the claimed subject matter, particularly a characteristic of a pattern within the region is selected depending on the density of the content within the region.

The differences between the cited prior art and the indicated claims are significant because selecting a characteristic of the pattern depending on the density of content allows for a way to create a document with both position identifying patterns and content that do not obscure one another. Thus, the claimed subject matter provides features and advantages not known or available in the cited prior art. Consequently, the cited prior art will not support a rejection of claim 33 under 35 U.S.C. § 103 and *Graham*. Therefore, for at least the reasons explained here, the rejection based on Priddy and Petter of claim 33 and its dependent claims should be reconsidered and withdrawn.

Claims 35, 36, and 37:

Claim 35 recites: “[a] method according to claim 34 wherein the density of each of the pattern elements is selected *a high density and a low density*.” (Emphasis added). Similarly, claim 36 recites “[a] method according to claim 35 wherein *the high density corresponds to the pattern elements being substantially covered with marking material*, when the image is applied to a product.” (Emphasis added). Finally, claim 37 recites: “[a] method according to claim 35 wherein *the low density corresponds to the pattern elements being left substantially free of marking material*, when the image is applied to a product.” (Emphasis added). In contrast, Priddy and Petter do not teach or suggest “a high density and a low density” where “the high density corresponds to the pattern elements being substantially covered with marking material” and “the low density corresponds to the pattern elements being left substantially free of marking material.” (Claims 35-37).

The Office Action states that Priddy “calculates the product of the number of squares contained in each side 14 and determines the density of cells contained within matrix 10. By calculating the angle of the matrix, the matrix size and the matrix density.” (Action, p. 6). However, this portion of Priddy simply teaches the method of “*reading and decoding* matrix 10.” (Priddy, col. 5, ll. 66-67). This is accomplished by steps 104 through 108 as detailed at column 6, lines 6-24, as discussed above in connection with the patentability of claim 33. In other words, steps 104-108 simply determine how many cells (elements 20 and 22) are included in a matrix of cells, but has no relation to selecting a density of pattern elements (a high or low density) dependant upon the degree of which the pattern elements are covered by marking material.

In contrast, claims 35, 36, and 37 recite “a high density and a low density” where “the high density corresponds to the pattern elements being substantially covered with marking material” and “the low density corresponds to the pattern elements being left substantially free of marking material.” This subject matter is clearly not taught or suggested by Priddy or Petter.

Again, under the analysis required by *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966), to support a rejection under § 103, the scope and content of the prior art must first be determined, followed by an assessment of the differences between the prior art and the claim at issue in view of the ordinary skill in the art. In the present case, the scope and content of the prior art, as evidenced by Priddy and Petter, did not include the claimed subject matter, particularly a high density and a low density where the high density corresponds to the pattern elements being substantially covered with marking material and the low density corresponds to the pattern elements being left substantially free of marking material.

The differences between the cited prior art and the indicated claims are significant because selecting a high or low density of pattern elements where the high density corresponds to the pattern elements being substantially covered with marking material and the low density corresponds to the pattern elements being left substantially free of marking material allows for a way to ensure there is sufficient contrast between the pattern and the content superimposed thereupon. Thus, the claimed subject matter provides features and advantages not known or available in the cited prior art. Consequently, the cited prior art will not support a rejection of claims 35, 36, and 37 under 35 U.S.C. § 103 and *Graham*. Therefore, for at least the reasons explained here, the rejection based on Priddy and Petter of claims 35, 36, and 37 and their dependent claims (where applicable) should be reconsidered and withdrawn.

Claim 40:

Claim 40 recites: “[a] method according to claim 39 wherein the content within said region is classified as high, low or intermediate density, and the method further comprises *modifying the content in the intermediate density content regions to make it higher or lower density thereby to maintain contrast between the content and the pattern in the intermediate density regions.*” (Emphasis added). In contrast, Priddy and Petter do not teach or suggest “modifying the content in the intermediate density content regions to make it higher or lower density thereby to maintain contrast between the content and the pattern in the intermediate density regions.” (Claim 40).

The Office Action again cites to column 6, lines 6-11 in rejecting claim 40. (Action, p. 7). However, as stated above in connection with claim 35-37, this portion of Priddy simply teaches the method of “*reading and decoding* matrix 10,” which is accomplished by steps 104 through 108. (Priddy, col. 5, ll. 66-67). This section has no relation to modifying content in an intermediate density content region to make it higher or lower density in order to maintain contrast between the content and the pattern in the intermediate density regions.

In contrast, claim 40 recites “modifying the content in the intermediate density content regions to make it higher or lower density thereby to maintain contrast between the content and the pattern in the intermediate density regions.” This subject matter is clearly not taught or suggested by Priddy or Petter.

Again, under the analysis required by *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966), to support a rejection under § 103, the scope and content of the prior art must first be determined, followed by an assessment of the differences between the prior art and the claim at issue in view of the ordinary skill in the art. In the present case, the scope and

content of the prior art, as evidenced by Priddy and Petter, did not include the claimed subject matter, particularly modifying the content in the intermediate density content regions to make it higher or lower density thereby to maintain contrast between the content and the pattern in the intermediate density regions.

The differences between the cited prior art and the indicated claims are significant because modifying the content in the intermediate density content regions to make it higher or lower density allows for a way to maintain contrast between the content and the pattern in the intermediate density regions. Thus, the claimed subject matter provides features and advantages not known or available in the cited prior art. Consequently, the cited prior art will not support a rejection of claim 40 under 35 U.S.C. § 103 and Graham. Therefore, for at least the reasons explained here, the rejection based on Priddy and Petter of claim 40 should be reconsidered and withdrawn.

Claims 41 and 42:

Claim 41 recites “[a] method according to claim 31 wherein the characteristic is a *characteristic of the content*.” (Emphasis added). Similarly, claim 42 recites “[a] method according to claim 41 wherein, *the characteristic is the density of the content*, which is limited to at least one predetermined range to maintain contrast between the content and the pattern within the region.” In addition to the arguments presented above in connection with the patentability of claim 31, Priddy and Petter do not teach or suggest “wherein the characteristic is a *characteristic of the content*,” or “wherein the characteristic is the density of the content.” (Claims 41 and 42).

The Office Action, in rejecting claims 41 and 42, cites to steps 104-108 and column 6, line 66 through column 7, line 16 of Priddy. (Action, pp. 7-8). However, these sections of

Priddy simply teach the method of “*reading and decoding* matrix 10,” which is accomplished by steps 104 through 108, and how a user may select the level of repetition of the pattern that is to be printed on a sheet. (Priddy, col. 5, ll. 66-67 and col. 6, l. 66 through col. 7, l. 16). These sections have no relation to selecting a characteristic of the content, or wherein the characteristic is the density of the content.

In contrast, claims 41 and 42 recite “wherein the characteristic is a characteristic of the content,” and “wherein the characteristic is the density of the content.” This subject matter is clearly not taught or suggested by Priddy or Petter.

Again, under the analysis required by *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966), to support a rejection under § 103, the scope and content of the prior art must first be determined, followed by an assessment of the differences between the prior art and the claim at issue in view of the ordinary skill in the art. In the present case, the scope and content of the prior art, as evidenced by Priddy and Petter, did not include the claimed subject matter, particularly wherein the characteristic is a characteristic of the content, and wherein the characteristic is the density of the content.

The differences between the cited prior art and the indicated claims are significant because being able to select a characteristic of the content and/or wherein the characteristic is the density of the content allows for a way to maintain contrast between the content and the pattern in the intermediate density regions. Thus, the claimed subject matter provides features and advantages not known or available in the cited prior art. Consequently, the cited prior art will not support a rejection of claims 41 and 42 under 35 U.S.C. § 103 and *Graham*. Therefore, for at least the reasons explained here, the rejection based on Priddy and Petter of claims 41 and 42 should be reconsidered and withdrawn.

Claim 44:

Claim 44 recites “[a] method according to claim 41 wherein the characteristic of the content is *the nature of the marking material to be used* when applying the content to a product.” (Emphasis added). In contrast, Priddy and Petter do not teach or suggest “wherein the characteristic of the content is the nature of the marking material to be used.” (Claim 44).

The Office Action states that Petter teaches that “three-dimensional pattern recognition algorithms are applied which more or less directly give, for example, the center points of a marking which ‘flows together’ with adjoining markings.” (Action, p. 8). However, this section of Petter does not discuss the nature of the marking material (e.g. ink).

In contrast, claim 44 recites “wherein the characteristic of the content is the nature of the marking material to be used.” This subject matter is clearly not taught or suggested by Priddy or Petter.

Again, under the analysis required by *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966), to support a rejection under § 103, the scope and content of the prior art must first be determined, followed by an assessment of the differences between the prior art and the claim at issue in view of the ordinary skill in the art. In the present case, the scope and content of the prior art, as evidenced by Priddy and Petter, did not include the claimed subject matter, particularly wherein the characteristic of the content is the nature of the marking material to be used.

The differences between the cited prior art and the indicated claims are significant because being able to select a characteristic of the content wherein the characteristic of the content is the nature of the marking material to be used when applying the content to a product allows for different wavelengths of the material to be detectable. Thus, the claimed subject matter provides features and advantages not known or available in the cited prior art.

Consequently, the cited prior art will not support a rejection of claim 44 under 35 U.S.C. § 103 and Graham. Therefore, for at least the reasons explained here, the rejection based on Priddy and Petter of claim 44 should be reconsidered and withdrawn.

Claim 45:

Claim 45 recites “[a] method according to claim 44 wherein the *marking material is selected to be different from that selected for applying the pattern to the product.*” (Emphasis added). In connection with the arguments above in connection with the patentability of claim 44, Priddy and Petter do not teach or suggest “wherein the marking material is selected to be different from that selected for applying the pattern to the product.” (Claim 45).

The Office Action cites to page 9, line 25 through page 10, line 5 of Petter in rejecting claim 45. However, this portion of Petter simply teaches printing a raster point in connection with a marking, but does not teach or suggest that the raster point and marking are composed of differing marking materials.

In contrast, claim 45 recites “wherein the marking material is selected to be different from that selected for applying the pattern to the product.” This subject matter is clearly not taught or suggested by Priddy or Petter.

Again, under the analysis required by *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966), to support a rejection under § 103, the scope and content of the prior art must first be determined, followed by an assessment of the differences between the prior art and the claim at issue in view of the ordinary skill in the art. In the present case, the scope and content of the prior art, as evidenced by Priddy and Petter, did not include the claimed subject

matter, particularly wherein the marking material is selected to be different from that selected for applying the pattern to the product.

The differences between the cited prior art and the indicated claims are significant because having marking material for the content that is selected to be different from that selected for applying the pattern to the product allows for different wavelengths of the material to be detected. Thus, the claimed subject matter provides features and advantages not known or available in the cited prior art. Consequently, the cited prior art will not support a rejection of claim 44 under 35 U.S.C. § 103 and Graham. Therefore, for at least the reasons explained here, the rejection based on Priddy and Petter of claim 44 should be reconsidered and withdrawn.

New Claim:

The newly added claim is thought to be patentable over the prior art of record for at least the same reasons given above with respect to the original independent claims. Therefore, examination and allowance of the newly added claim is respectfully requested.

Conclusion:

In view of the foregoing arguments, all claims are believed to be in condition for allowance over the prior art of record. Therefore, this response is believed to be a complete response to the Office Action. However, Applicant reserves the right to set forth further arguments in future papers supporting the patentability of any of the claims, including the separate patentability of the dependent claims not explicitly addressed herein. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed.

The absence of a reply to a specific rejection, issue, or comment in the Office Action does not signify agreement with or concession of that rejection, issue, or comment. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment. Further, for any instances in which the Examiner took Official Notice in the Office Action, Applicants expressly do not acquiesce to the taking of Official Notice, and respectfully request that the Examiner provide an affidavit to support the Official Notice taken in the next Office Action, as required by 37 CFR 1.104(d)(2) and MPEP § 2144.03.

If the Examiner has any comments or suggestions which could place this application in better form, the Examiner is requested to telephone the undersigned attorney at the number listed below.

Respectfully submitted,

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